## APPENDIX P

Baseline Intakes for the EPA Default and Box Model Scenarios by Area and Age Level

## Appendix P

## Baseline Intakes for the EPA Default and Box Model Scenarios by Area and Age Level

The tables and figures in this appendix show lead intake rates for children aged 1 to 4 years, 5 to 6 years, and 0 to 1 years (also 6 to 7 years). These are based on the default values provided in the IEUBK Model for total soil and dust intake. The rates provided for air, water, and market basket intakes are EPA default values that are used for all age groups.

Table P-1a Baseline Intakes for Child Ingestion of Soils (Ages 1-4) - Default Scenario

One to Four Year Olds

|                 | Community<br>Average Soil | Soil Intake | Community<br>Average Dust | Dust<br>Intake | Air Intake | Water<br>Intake | Market<br>Basket<br>Intake | Total<br>Intake |
|-----------------|---------------------------|-------------|---------------------------|----------------|------------|-----------------|----------------------------|-----------------|
| Area            | Conc. (mg/kg)             | (µg/day)    | Conc. (mg/kg)             | (µg/day)       | (µg/day)   | (µg/day)        | (µg/day)                   | (µg/day)        |
| Mullan          | 628                       | 38          | 985                       | 73             | 0.5        | 2               | 6                          | 120             |
| Burke/Nine Mile | 548                       | 33          | 879                       | 65             | 0.5        | 2               | 6                          | 107             |
| Wallace         | 771                       | 47          | 1004                      | 75             | 0.5        | 2               | 6                          | 130             |
| Silverton       | 352                       | 21          | 557                       | 41             | 0.5        | 2               | 6                          | 71              |
| Osburn          | 418                       | 25          | 493                       | 37             | 0.5        | 2               | 6                          | 71              |
| Side Gulches    | 373                       | 23          | 695                       | 52             | 0.5        | 2               | 6                          | 83              |
| Kingston        | 257                       | 16          | 466                       | 35             | 0.5        | 2               | 6                          | 59              |
| Lower Basin     | 110                       | 7           | 301                       | 22             | 0.5        | 2               | 6                          | 38              |

Table P-1b Baseline Intakes for Child Ingestion of Soils (Ages 1-4) - 40:30:30 Scenario

One to Four Year Olds

|                 | Community     |             | Community     | Dust     |            | Water    | Market<br>Basket | Total    |
|-----------------|---------------|-------------|---------------|----------|------------|----------|------------------|----------|
|                 | Average Soil  | Soil Intake | Average Dust  | Intake   | Air Intake | Intake   | Intake           | Intake   |
| Area            | Conc. (mg/kg) | (µg/day)    | Conc. (mg/kg) | (µg/day) | (µg/day)   | (µg/day) | (µg/day)         | (µg/day) |
| Mullan          | 628           | 51          | 985           | 53       | 0.5        | 2        | 6                | 113      |
| Burke/Nine Mile | 548           | 44          | 879           | 47       | 0.5        | 2        | 6                | 101      |
| Wallace         | 771           | 62          | 1004          | 54       | 0.5        | 2        | 6                | 125      |
| Silverton       | 352           | 29          | 557           | 30       | 0.5        | 2        | 6                | 67       |
| Osburn          | 418           | 34          | 493           | 27       | 0.5        | 2        | 6                | 69       |
| Side Gulches    | 373           | 30          | 695           | 38       | 0.5        | 2        | 6                | 76       |
| Kingston        | 257           | 21          | 466           | 25       | 0.5        | 2        | 6                | 55       |
| Lower Basin     | 110           | 9           | 301           | 16       | 0.5        | 2        | 6                | 34       |

Figure P-1a Summary of Children's Recreational Potential Incremental Lead Intakes Ages 1-4 Years (CT)

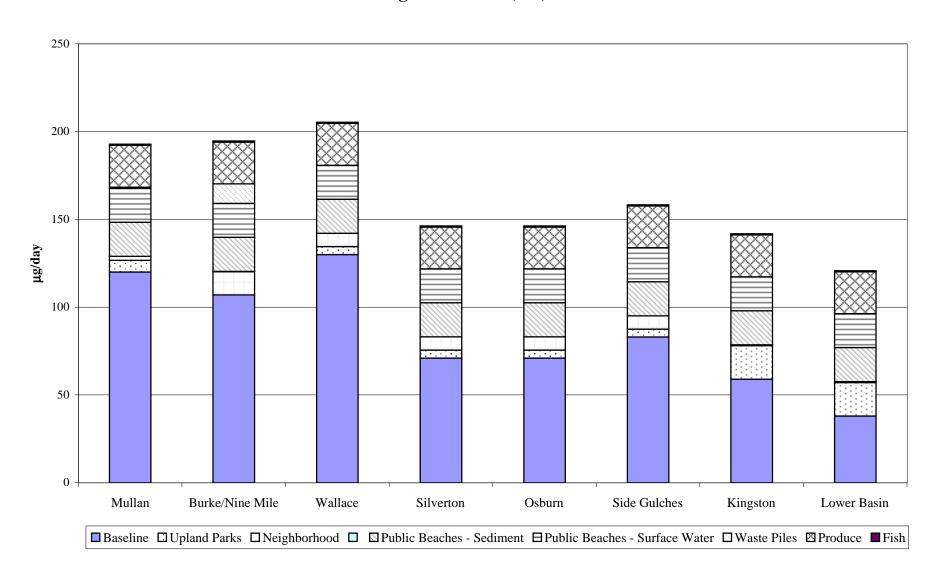


Figure P-1b Summary of Children's Recreational Potential Incremental Lead Intakes Ages 1-4 yrs. (RME)

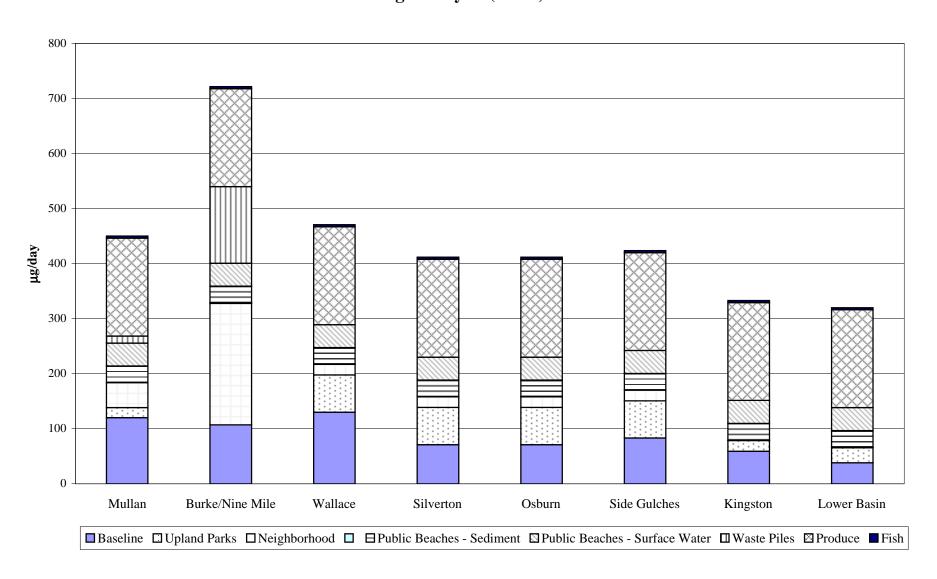


Table P-2a Baseline Intakes for Child Ingestion of Soils (Ages 5-6) - Default Scenario

Five to Six Year Olds

|                 | C                         |             | C                      | D4             |            | <b>VV</b> -4    | Market           | TF-4-1          |
|-----------------|---------------------------|-------------|------------------------|----------------|------------|-----------------|------------------|-----------------|
|                 | Community<br>Average Soil | Soil Intake | Community Average Dust | Dust<br>Intake | Air Intake | Water<br>Intake | Basket<br>Intake | Total<br>Intake |
| Area            | Conc. (mg/kg)             | (μg/day)    | Conc. (mg/kg)          | (µg/day)       | (µg/day)   | (µg/day)        | (μg/day)         | (µg/day)        |
| Mullan          | 628                       | 25          | 985                    | 49             | 0.5        | 2               | 6                | 83              |
| Burke/Nine Mile | 548                       | 22          | 879                    | 44             | 0.5        | 2               | 6                | 74              |
| Wallace         | 771                       | 31          | 1004                   | 50             | 0.5        | 2               | 6                | 90              |
| Silverton       | 352                       | 14          | 557                    | 28             | 0.5        | 2               | 6                | 51              |
| Osburn          | 418                       | 17          | 493                    | 24             | 0.5        | 2               | 6                | 50              |
| Side Gulches    | 373                       | 15          | 695                    | 34             | 0.5        | 2               | 6                | 58              |
| Kingston        | 257                       | 10          | 466                    | 23             | 0.5        | 2               | 6                | 42              |
| Lower Basin     | 110                       | 4           | 301                    | 15             | 0.5        | 2               | 6                | 28              |

Table P-2b Baseline Intakes for Child Ingestion of Soils (Ages 5-6) - 40:30:30 Scenario

Five to Six Year Olds

| Area            | Community<br>Average Soil<br>Conc. (mg/kg) | Soil Intake<br>(µg/day) | Community Average Dust Conc. (mg/kg) | Dust<br>Intake<br>(µg/day) | Air Intake<br>(μg/day) | Water<br>Intake<br>(µg/day) | Market<br>Basket<br>Intake<br>(µg/day) | Total<br>Intake<br>(µg/day) |
|-----------------|--|-------------------------|--------------------------------------|----------------------------|------------------------|-----------------------------|--|-----------------------------|
| Mullan          | 628  | 34                      | 985                                  | 35                         | 0.5                    | 2                           | 6                                      | 78                          |
| Burke/Nine Mile | 548  | 30                      | 879                                  | 32                         | 0.5                    | 2                           | 6                                      | 70                          |
| Wallace         | 771  | 42                      | 1004                                 | 36                         | 0.5                    | 2                           | 6                                      | 87                          |
| Silverton       | 352  | 19                      | 557                                  | 20                         | 0.5                    | 2                           | 6                                      | 48                          |
| Osburn          | 418  | 23                      | 493                                  | 18                         | 0.5                    | 2                           | 6                                      | 49                          |
| Side Gulches    | 373  | 20                      | 695                                  | 25                         | 0.5                    | 2                           | 6                                      | 54                          |
| Kingston        | 257  | 14                      | 466                                  | 17                         | 0.5                    | 2                           | 6                                      | 39                          |
| Lower Basin     | 110  | 6                       | 301                                  | 11                         | 0.5                    | 2                           | 6                                      | 25                          |

Figure P-2a Summary of Children's Recreational Potential Incremental Lead Intakes for Ages 5-6 (CT)

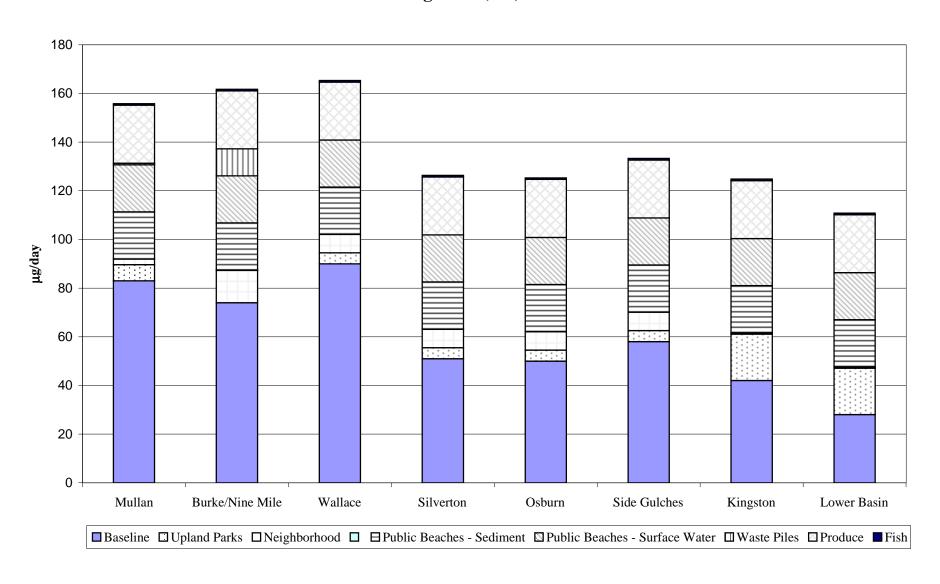


Figure P-2b Summary of Children's Recreational Potential Incremental Lead Intakes for Ages 5-6 (RME)

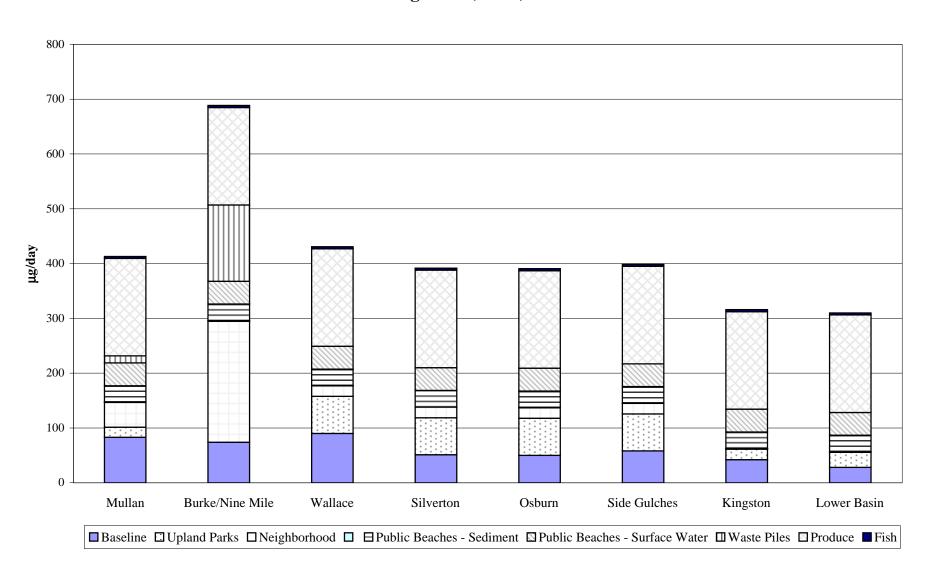


Table P-3a Baseline Intakes for Child Ingestion of Soils (Ages 0-1 and Ages 6-7) - Default Scenario

Zero to One Year Olds and Six to Seven Year Olds

| Area            | Community<br>Average Soil<br>Conc. (mg/kg) | Soil Intake<br>(µg/day) | Community<br>Average Dust<br>Conc. (mg/kg) | Dust<br>Intake<br>µg/day) | Air Intake<br>(µg/d) | Water<br>Intake<br>(µg/day) | Market<br>Basket<br>Intake<br>(μg/day) | Total<br>Intake<br>(µg/day) |
|-----------------|--|-------------------------|--|---------------------------|----------------------|-----------------------------|--|-----------------------------|
| Mullan          | 628  | 24                      | 985  | 46                        | 0.5                  | 2                           | 6                                      | 79                          |
| Burke/Nine Mile | 548  | 21                      | 879  | 41                        | 0.5                  | 2                           | 6                                      | 71                          |
| Wallace         | 771  | 30                      | 1004                                       | 47                        | 0.5                  | 2                           | 6                                      | 85                          |
| Silverton       | 352  | 13                      | 557  | 26                        | 0.5                  | 2                           | 6                                      | 48                          |
| Osburn          | 418  | 16                      | 493  | 23                        | 0.5                  | 2                           | 6                                      | 48                          |
| Side Gulches    | 373  | 14                      | 695  | 32                        | 0.5                  | 2                           | 6                                      | 55                          |
| Kingston        | 257  | 10                      | 466  | 22                        | 0.5                  | 2                           | 6                                      | 40                          |
| Lower Basin     | 110  | 4                       | 301  | 14                        | 0.5                  | 2                           | 6                                      | 27                          |

<sup>\*</sup> Note: The ingestion rate for 0-1 year olds and 6-7 year olds is the same, 0.085 gms/day.

Table P-3b Baseline Intakes for Child Ingestion of Soils (Ages 0-1 and Ages 6-7) - 40:30:30 Scenario

Zero to One Year Olds and Six to Seven Year Olds

| Area            | Community<br>Average Soil<br>Conc. (mg/kg) | Soil Intake<br>(µg/day) | Community<br>Average Dust<br>Conc. (mg/kg) | Dust<br>Intake<br>µg/day) | Air Intake<br>(µg/d) | Water<br>Intake<br>(µg/day) | Market<br>Basket<br>Intake<br>(μg/day) | Total<br>Intake<br>(µg/day) |
|-----------------|--|-------------------------|--|---------------------------|----------------------|-----------------------------|--|-----------------------------|
| Mullan          | 628  | 32                      | 985  | 33                        | 0.5                  | 2                           | 6                                      | 74                          |
| Burke/Nine Mile | 548  | 28                      | 879  | 30                        | 0.5                  | 2                           | 6                                      | 67                          |
| Wallace         | 771  | 39                      | 1004                                       | 34                        | 0.5                  | 2                           | 6                                      | 82                          |
| Silverton       | 352  | 18                      | 557  | 19                        | 0.5                  | 2                           | 6                                      | 46                          |
| Osburn          | 418  | 21                      | 493  | 17                        | 0.5                  | 2                           | 6                                      | 47                          |
| Side Gulches    | 373  | 19                      | 695  | 24                        | 0.5                  | 2                           | 6                                      | 51                          |
| Kingston        | 257  | 13                      | 466  | 16                        | 0.5                  | 2                           | 6                                      | 38                          |
| Lower Basin     | 110  | 6                       | 301  | 10                        | 0.5                  | 2                           | 6                                      | 25                          |

<sup>\*</sup> Note: The ingestion rate for 0-1 year olds and 6-7 year olds is the same, 0.085 gms/day.

Figure P-3a Summary of Children's Recreational Potential Incremental Lead Intakes Ages 0-1 and 6-7 (CT)

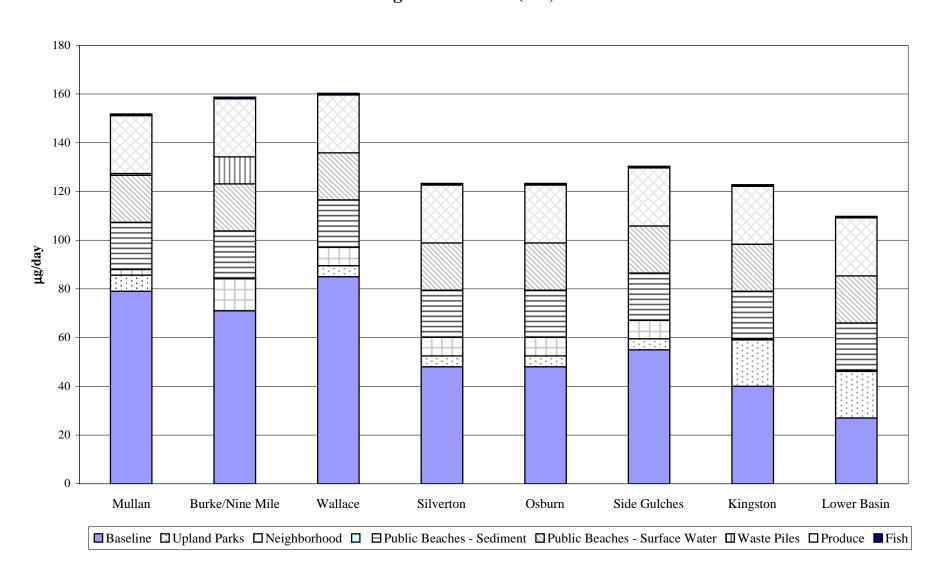


Figure P-3b Summary of Children's Recreational Potential Incremental Lead Intakes Ages 0-1 and 6-7 (RME)

